## SPACE TOURISM ORGANIZATION AND ADMINISTRATIVE ARRANGEMENT OF TOURIST TRAFFIC ANALYSIS BY LOCALITY BUŞTENI

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#### Abstract

In order to achieve the best possible tourist activity it is needed that besides natural resources and human and material resources to be able to satisfy the tourist requirements. These material resourcess are known as "material and technical basis". This is represented by: accommodation and food, transportation, treatment and leisure facilities and is primarily conditioned by the development and modernization of existing material and technical basis. Thus, a highly attractive tourist area can not be on offer before receiving the facilities for receiving and retaining travelers. Buşteni, resort includes Poiana Tapului,s dominated by steep Bucegi and has a great starting point for ascents, but it is also a true spa, indicated not only for leisure but also for the treatment of diseases of debility, physical and mental fatigue and digestive disorders and glands. Most representative indicators commonly used to express movement and travel and its main characteristics are: number of urge tourists, average daily number of tourists, number of days / tourist, average length of stay, receipts from tourism and tourist traffic density, tourists' relative preferences. Analysis of tourist traffic in the tourist areas of Buşteni will be achieved by calculating these indicators. Tourist traffic indicators reflect the distribution and evolution in time of tourism internal and external demand,. They also reflect the behavior of the application on the use of vehicles and equipment and can be used for studying the origin and destination of tourism demand, the average stay and fidelity to a particular destination.

*Key words:* average length of stay, distribution of tourism demand, occupancy of hotels and hostels, tourist traffic analysis, tourist traffic density,

### **INTRODUCTION**

Tourism-environment relationship is of great importance, protection and conservation of the environment being an important condition for development and tourism development [4]. This complex relationship is operating in the both directions. Natural environment through its components represent the fundamentals of tourism resources and tourism activity, on the other hand, has a both positive and negative influence on environment, modifying its components.

Environment is defined as quality of life, living conditions of the people and the natural habitats suitable for animals and plants. Quality of life is determined by the long-term availability in sufficient quantity and of appropriate quality resources such as water, air, earth and space in general and raw materials [2]. All the natural factors and also those created by human activities and, especially, tourism quality create travel motivation, forming "raw material" of tourism. Therefore, maintaining a high quality of natural resources is a prerequisite for ongoing the development of tourism consumption.

For over 30 years, starting with the Conference on Environment in Stockholm in 1972, the world began to recognize that environmental problems are inseparable from those of welfare and economic processes in general. Thus, it was to talk about the concept of "sustainable development" which is a process that takes place without destroying or depleting resources, ensuring development [10].

Tourism is an important contribution to maintaining and improving environmental quality, manifesting itself as an active factor of sustainable development is in the interest or involvement in this matter and to work in cooperation with other industries in the quality of the resource base and survival it [9]. The volume of tourist flows is determined by demand and its factors, and the degree of technical equipment territories.

This explains, in large measure, the attraction of different areas, with potentially sensitive close but differentiated technically equipped.

### MATERIALS AND METHODS

In order to analyze the area's tourism traffic travel logs, and for better organization and planning tourism will calculate the most representative indicators of tourist traffic as follows: average daily number of tourists, no. overnight stays, average length of stay, tourist traffic density and capacity utilization coefficient of accommodation. Data were collected from INSSE, Prahova, Bucharest. and data provided by pension "HOUSE MAIA" which were statistically processed and interpreted.

### **RESULTS AND DISCUSSIONS**

**Buşteni** is a small mountain town in the north of the county Prahova, Muntenia, in central Romania. It is located in the Prahova Valley, at the foot of Bucegi Mountains, with a maximum altitude of 2505 m has a population of 10,374 inhabitants [1].

The average altitude is 850 m Busteni is one of the most popular mountain resorts, offering spectacular views, lots of opportunities and holiday activities, from skiing to hiking. Located 135 km from Bucharest, covers an area of 8.517 km along the valley between "Vadul Cerbului" and tunnel dug in the mountain spur "Muchia Lungă" ("Long Edge") [3].

**Busteni** includes Poiana Țapului is dominated by steep Bucegi and has a great starting point for ascents, but is also a true spa, is indicated not only for leisure but also for the treatment of debilitating illnesses, physical exhaustion and intellectual and disorders of the digestive tract and glands. As in other areas, in Prahova County are recorded reserves and natural monuments which geobotany domain, geological, flora, fauna, forest, with great scientific value, landscape and tourism, which have been placed under the protection of the law.

An interesting point on Prahova County is the geological reserve "Salt Mountain" from Slănic massive salt karst forms of carving and anthropogenic lake. Located on 1.8 hectares of salt mountain appeared to crash the Baia Baciului pit, pit which in the eighteenth century salt is extracted [5]. The collapse caused a landslide on the slope above, which resulted in massive denudation. Subsequent collapse of the ceiling in the middle of the mountain opened a pit 50 m deep, 20 m were filled with water, forming Lake Bride. Monument of rare beauty "Salt Mountain" is unique to our country [7].

# Analysis of tourist traffic at the local level in Busteni

Table 1. Tourism supply and demand indicators on Busteni

Indicators	2008	2009	2010	2011
Number of	9,058	11,594	11,000	14,475
overnights				
stays				
Number of	3,975	4,561	2,737	2,568
Romanian				
tourists				
Number of	975	709	1494	1984
foreign tourists				
Total number	4,950	5,270	4,231	4,552
of tourists				
(foreign +				
Romanian)				
No. of Hotel	929,000	966,100	1,062,500	1,017,200
accommodation				
Number of	74	80	108	111
places in				
hostels				
The average	1.83	2.20	2.60	3.18
length of stay				

Statistical Yearbooks of Prahova County, the City Buşteni

a.Index of global tourist demand change= [(No. Romanian tourists + No. Foreign tourists) per current year/(No. Romanian tourists + No. Foreign tourists) per previous year ]\*100

$$\Delta CG_{0-i} = \frac{CG_i}{CG_0} \cdot 100$$

Where:  $CG_i$  - global tourism demand in year "*i*"

 $CG_0$  - global tourism demand in "0".

 $\begin{array}{l} \Delta C_{t2008\text{-}2009} = (5,270/4,950 \ ) * \ 100 = 106.46 \ \% \\ \Delta C_{t2009\text{-}2010} = (4,231/5,270 \ ) * \ 100 = 80.28 \ \% \\ \Delta C_{t2010\text{-}2011} = (4,552/4,231) \ * \ 100 = 107.58 \ \% \end{array}$ 

The index of global tourist demand change increased by 6.46% in 2009, and then it was descending by 19.72%. In 2011, tourism demand has increased again by 7.58%.

*b.Index of global tourist demand distribution* between domestic demand and external demand

*Ici* = [No. Romanian tourists per current year / (No. Romanian tourists + No. Foreign tourists) current year]\*100

*Ice* = [No. Foreign tourists per current year / (No. of Romanian tourists + No.of Foreign tourists) current year]\*100

$$\Delta CI_{0-i} = \frac{CI}{CG} \cdot 100; \ \Delta CE_{0-i} = \frac{CE}{CG} \cdot 100$$

where: *CI* - domestic tourism demand; *CE* - foreign tourism demand.

$$\begin{split} I_{i2008} &= (3,975/4,950) * 100 = 80.30 \ \% \\ I_{e2008} &= (975/4,950) * 100 = 19.69 \ \% \\ I_{i2009} &= (4,561/5,270) * 100 = 86.54 \ \% \\ I_{e2009} &= (709/5,270) * 100 = 13.45 \ \% \\ I_{i2010} &= (2,737/4,226) * 100 = 64.76 \ \% \\ I_{e2010} &= (1,494/4,226) * 100 = 35.35 \ \% \\ I_{e2011} &= (2,568/4,552) * 100 = 56.14 \ \% \\ I_{e2011} &= (1,984/4,552) * 100 = 45.58 \ \% \end{split}$$

From the above analysis and results it can be seen that the largest number of tourists who come to the city Logs are Romanian pensioners, while the number of foreigners is very low, mainly due to the fact that they do not prefer hotels and pensions.

# c.Index of (domestic and foreign) demand variation in time

*Ici* = (No. Romanian tourists per current year / No. Romanian tourists per previous year)\*100

*Ice* = (No. Foreign tourists per current year / No. Foreign tourists per previous year)\*100

$$ICE_{0-i} = \frac{CE_i}{CE_0} \cdot 100$$
,  $ICI_{0-i} = \frac{CI_i}{CI_0} \cdot 100$ 

Where  $ICE_{o-i}$  - index variation in external demand;

 $ICI_{o-i}$  - index of variation in domestic demand.

$$ICI_{2009} = (4,561/3,975) * 100 = 114.74 \%$$

$$ICE_{2009} = (709/975) * 100 = 72.71 \%$$

$$ICI_{2010} = (2,737/4,561) * 100 = 60 \%$$

$$ICE_{2010} = (1,494/709) * 100 = 210.71 \%$$

$$ICI_{2011} = (2,568/2,737) * 100 = 93.82 \%$$

$$ICE_{2011} = (1,984/1,494) * 100 = 132.79 \%$$

From the above calculations, it can be said that in the period 2009-2011 tourism demand both in domestic and foreign markets, increased from year to year, and the maximum increase is 110.71%. External demand has also increased by 40%.

## d. The monthly concentration coefficient (in 2011)

**Cc** = [No. Tourists per each month / (No. Romanian tourists + No. Foreign tourists) per year of calculation]\*100

It is calculated by dividing the number of tourists in the month with the most total number of tourist arrivals a year  $A_t$ .

$$C_c = \frac{LM}{A_c}$$

For this, we have to take into considerayion the year 2011 and the number of tourists every month as follows: January 427, February 362, March 346, April 438, May 326, June 467, July 456, August 495, September 315, October 1244, November 1237, December 2439 -  $A_t = 4552$  tourists.

C  $_{c ian} = (427/4,552) = 0.093$ C  $_{c feb} = (362/4,552) = 0.079$ C  $_{c mart} = (346/4,552) = 0.076$ C  $_{c apr} = (438/4,552) = 0.0962$ C  $_{c mai} = (326/4,552) = 0.0962$ C  $_{c iun} = (467/4,552) = 0.102$ C  $_{c iul} = (456/4,552) = 0.100$ C  $_{c aug} = (495/4,552) = 0.108$ C  $_{c sept} = (315/4,552) = 0.069$ C  $_{c oct} = (244/4,552) = 0.053$ C  $_{c nov} = (237/4,552) = 0.052$ C  $_{c dec} = (439/4,552) = 0.096$ 

Tourist highest concentration was recorded in June, July and August and the lowest

concentration of tourists in 2011 was in October and November.

e.Indicator of total accommodation capacity evolution between "0" and "i":

 $I_{LC} = (No. beds per current year / No beds per previous year)*100$ 

$$\Delta LC_{0-i} = \frac{LC_i}{LC_0} \cdot 100$$

 $\Delta C_{t \ 2010-2011} = (1,017,200/102,500) * 100 = 99.23.\%$ 

 $\Delta C_{t 2009-2010} = (1,062,500/966,100) * 100 = 109.97\%$ 

 $\Delta C_{t 2008-2009} = (966,100/929,000) * 100 = 103.99\%$ 

Number of beds in the period 2008-2011 had a downward trend from 9.97% in 2009-2010 decreased with 0.77% in 2010-2011, but with an increase in 2009 compared to 2008 by 5,98%.

## f.Index of customer evolution between "0" and "i"

 $I_T$  = (No. Romanian tourists+No. foreign tourists per current year) / (No. of Romanian tourists+No.foreign tourists per previous year)\*100

$$\Delta T = \frac{TP_i}{TP_0} \cdot 100$$

Where: *TP<sub>i</sub>* - *Tourists in hotels in the "i";* 

 $$TP_{\rm o}$$  - Tourists in hotels in the year "0".

 $\Delta Tp_{2009} = (5,270/4,950) * 100 = 106.46 \%$   $\Delta Tp_{2010} = (4,231/5,270) * 100 = 80.20 \%$  $\Delta Tp_{2010} = (4,642/4,231) * 100 = 109.71 \%$ 

In 2009-2011 the pensions of city tourists coming Logs experienced growth in 2009 and 2011. The largest increase recorded in the number of tourists is increasing in 2011 being 9.71%. And in 2010 was a decrease of 19.08% tourists.

g.Index of overnight stay evolution  $I_N = (No. \text{ overnight stay per current year / No.}$ overnight stay per previous year)\*100

$$\Delta N = \frac{NH_i}{NH_0} \cdot 100$$

Where: *N* - overnight.

 $\Delta Np_{2009} = (11,594/9,058) * 100 = 127.66 \%$   $\Delta Np_{2010} = (11,000/11,594) * 100 = 94.87 \%$  $\Delta Np_{2011} = (14,475/11,594) * 100 = 124.84 \%$ 

Number of overnight stays was an increasing trend up to increase knowledge in 2009 when it increased by 27.66%. And in 2010 was a decrease of 5.13% overnight stays.

h.The evolution in time of the average length of stay is calculated according to the following formula

$$\Delta \overline{S} = \frac{\overline{S_i}}{\overline{S_0}} \cdot 100$$

where:  $S_i$  - average length of stay in a given time interval "i";

 $S_0$  - the average length of stay at the time of "0".

 $\begin{array}{l} \Delta S_{m\;2009} = (2.20/1.83) * \; 100 = 120.21 \; \% \\ \Delta S_{m\;2010} = (2.60/2.20) * \; 100 = 118.18 \; \% \\ \Delta S_{m\;2011} = (3.18/2.60) * \; 100 = 122.30 \; \% \end{array}$ 

The average stay in the analyzed period was unstable evolution, showing decreases and increases.

*i.Indicator* occupancy hotels (hotel occupancy indicator)

It reflects the use of supply in a given period, i.e. the hotel business based on the capacity installed:

*Cuc* = [no. of overnight stay (No tourist days) / (no. beds \* no. of supply days)] \* 100

$$G_0 = \frac{NH \cdot 100}{LH \cdot Z} = \frac{NT \cdot S}{LH \cdot Z} \cdot 100$$

where:

G<sub>o</sub> - occupancy percentages; NH - number of nights; LH - number of places in hotels; Z - the number of days of tourism; NT - number of tourists,. S - average length of stay,

G  $_{2008} = [9,058/(929,000 \times 365)] * 100 =$ 0.00267% G  $_{2009} = [11,594/(966,100 \times 365)] * 100 =$ 0.00389% G  $_{2010} = [11,000/(1,062,500 \times 365)] * 100 =$ 0.00283% G  $_{2011} = [14,475/(1,017,200 \text{ x } 365)]* 100 = 0.00328\%$ 

Hotel occupancy in 2008-2011 is increased in 2009 compared to 2008, decreased in 2010 and increased again in 2011.

*j.Indicator in relation to population density tourism* = [(No. of Romanian tourists + No. foreign tourists) / no. inhabitants] \* 100

$$D_{t_{i-0}} = \frac{T_{t_{i-0}}}{Population}$$
 (tourists / no. inhabitants)

where:

 $T_{i-0}$  – Total Romanian tourist + total foreign; Pop - its population,

Years	2008	2009	2010	2011			
Local people	11260	10783	10584	10327			
Statistical Yearbooks of Prahova County							

 $\begin{array}{l} D_{t\;2008} = (4,950/11,260) = 0.43 \\ D_{t\;2009} = (5,270/10,783) = 0.48 \\ D_{t2010} = (4,226/10,584) = 0.39 \\ D_{t2011} = (4,552/10,327) = 044 \end{array}$ 

*k.Tourist density indicator in relation to area* = [(No. of Romanian tourists + No. foreign tourists)/area] \* 100

$$D_{t_{i-0}} = \frac{T_{t_{i-0}}}{Area} \text{ (tourists / km^2)}$$

where:

 $T_{i-0}$  - total Romanian + foreign tourists; S - area of the village- 8,517 km<sup>2</sup>,

$D_{ts\ 2008} = (4,950/8,517) = 0.3$	58
$D_{ts\ 2009} = (5,270/8,517) = 0.4$	61
$D_{ts\ 2010} = (4,226/8,517) = 0.4$	49
$D_{ts \ 2011} = (4,552/8,517) = 0.3$	53

### CONCLUSIONS

Economic and social development is combined with tourism development in that specific tourism activities by their complexity, contributing to the overall development of the area, while this development will in turn cause an increase in tourist traffic.

Locals and local authorities are trying to diversify the rural tourism supply and demand after the tourist market trends. Farmhouses built or which provide features that outside countries. That appeared competition between tourism and agro pensions due to the low number of tourists who choose to accommodate the agro pensions. Therefore pensions are growing agro touristic pensions face facing a serious decline.

The national tourism be tried removing the insulation and Romanian village development, allowing its use. To help create the purpose and existence of funds in their direction.

The European Union is willing to allocate some lend for rural development. Some people accept the responsibility for long-term development taking into account the national interest and international requirements

Endowed with great tourism potential varied, diversified and focused by the existence of landforms combined throughout, a favourable climate for tourism for most of the year, a potentially rich fauna and flora species and ecosystems single in Europe spa treatment with natural factors, with cultural heritage historical and global reference architecture, Prahova county may fall among attractive tourist destinations in Romania and even Europe.

The main measures that should be applied to achieve tourism development activities and tourism development in the locality Logs could be: the creation of programs and funds to co-finance regional development projects, linking with the national programs of local and regional expansion communications in tourist areas, modern and efficient transport, promote regional tourism potential through participation in tourism fairs, the execution of campaigns, preparation advertising of brochures with information about the area's tourism potential and suggestive images in this sense, media hostels and agrotourism farms.

Tourism is an important contribution to maintaining and improving environmental quality, manifesting as an active factor of sustainable development is in his interest to get involved in this issue and to work in cooperation with other industries in the quality of the resource base and survival it.

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